

# OFDM COMMUNICATION DEVICE

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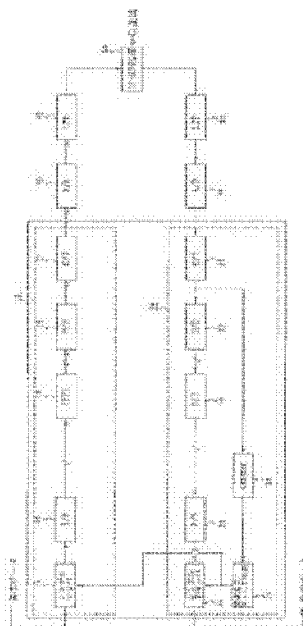
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**Abstract of JP 2003069523 (A)**

**PROBLEM TO BE SOLVED:** To provide an OFDM communication device which improves communication quality and cuts down the waste of sending power based on the CNR estimation concerning with transmission paths such as electric power lines. **SOLUTION:** The OFDM communication device receives the OFDM signals including preamble signals composed of predetermined fixed data, and then fetches out at least two preamble signals from the received signals to interconnect them so that it generates expanded preamble signals. By transforming the signals into frequency data using Fourier transform means, the device calculates in a lump carrier wave components relating to the expanded preamble signals and the other noise components, and performs the CNR estimation of the carrier wave components based on the result.



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